

Technical Note

Project: Bristol Temple Quarter

Our reference: 394007-MML-00-PM-TN-0003-B Your reference:

Prepared by: Date: 28/09/2018

Approved by: Checked by:

Subject: Impact of Flood Risk Strategy on Masterplan

1.1 Background

The current understanding of flood risk through the centre of Bristol is based on data from the Central Area Flood Risk Assessment (CAFRA) study. Where preceding studies had focused on the tidal flood risk in the city centre the CAFRA gave consideration to the joint probability of tidal and fluvial events occurring simultaneously. In terms of the Temple Quarter development the study concluded that dominant risk to the majority of the site was from tidal flooding with only the eastern extent of the site fluvially dominant.

Further refinement of the model is currently being undertaken by Arup. Early indications are that the St. Philips Marsh area may be at greater risk from fluvial flooding than previously understood and therefore this new assessment will need to be considered within the development of the strategies for the Bristol Temple Quarter Masterplan.

A Strategic Outline Case (SOC) is currently being developed by Arup which includes updates and refinements to the hydraulic modelling assessment. Current programme projections are as follows:

- Modelling to be complete October 2018
- Public consultation late 2018
- Greenway Consultation early 2018
- Large Project Review Group (LPRG) Submission summer 2019
- Commission complete early Autumn 2019

Please note that these dates are subject to change.

From discussions which have taken place with BCC and Arup, the likely conclusion from the flood risk strategy will be that interventions are required to manage the flood risk to developments within Temple Quarter. It is indicated that in general the site is influenced by tidal, however fluvial influence is present towards eastern area of St. Philips Marsh. Because this new study identifies a larger potential for fluvial influence, this alters the complexity of potential flood defence options within this zone.

In addition to the development of the SOC, Eden Vale Young has been commissioned to undertake the update to the Strategic Flood Risk Assessment (SFRA) for Bristol City Council. It is understood that this will commence upon receipt of the modelling from Arup and is anticipated to take several months to complete. The SFRA is seen as a key document in the development of the masterplan as this sets out BCC Flood Risk Strategy and if adopted would feed into the Local Plan which proposed development are measured against.

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1.2 Effects on the Temple Quarter Flood Risk Strategy and Development of the Masterplan

It is not possible to progress with the scope of works for the Flood Risk Strategy as identified within the Temple Quarter Masterplan Brief in an efficient manner without new flood modelling data.

Without a Flood Risk Strategy for the project it would be difficult to significantly progress the development of the masterplan. The flood risk strategy influences:

- Land Use Strategy (which in turn influences other strategies)
- Utilities Strategy
- Phasing Strategy
- Public Realm Strategy
- Green Infrastructure Strategy
- Consents Strategy
- And the development of the Masterplan.

The following options are therefore presented for your consideration to minimise programme and associated cost impact.

1. Delay programme until completion of Strategic Flood Risk Assessment

This option would enable the development of the Flood Risk Strategy to be undertaken based on agreed parameters and decisions. The masterplan will therefore be developed in line with the adopted SFRA and in line with the Local Plan.

This option would significantly delay the delivery of the Masterplan. Flood Risk Strategy would not be able to commence until early 2019. This would delay other strategies which are informed by the masterplan – most notably the Land Use Strategy, which in turn is influences and drives other strategies.

Anticipated delay to programme: 4-5 months.

2. Develop the flood risk strategy based on previously adopted information.

This option would utilise existing published data for the development of the Flood Risk Strategy and hence the development of the masterplan. Data and flood modelling information is already available through the work previously undertaken for the CAFRA. This option would avoid delays to programme.

This option would require acknowledgement from Bristol City Council that the project has been developed based upon superseded information, and this would reduce the confidence in the evidence based output of the Delivery Model and Business Case. As noted and discussed during the meeting between Mott MacDonald, Bristol City Council and Arup, it is understood that there has been significant updates to the model.

Consequence - masterplan potentially invalid and additional capital cost / investment required

3. Develop Flood Risk Strategy based on current information being undertaken.

Current flood modelling has been developed in conjunction with Bristol City Council and Environment Agency. The modelling is being refined and options for flood interventions are emerging. However, strategic outline case and development of designs has not been completed, therefore it is not confirmed whether the flood interventions will be adopted.

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Consequence - There is a risk that the SFRA will not be adopted, therefore confirmation will need to be provided by the Project Board that it is acceptable to proceed based on the current information.

Recommendation

To mitigate delays in masterplan delivery, we propose that Option 3 is taken and the flood risk strategy is developed in collaboration with flood modelling consultant (Arup) so that the flood strategy is developed on current information.

A decision will also have to be made by BCC whether the capital costs for flood interventions should be included within the Bristol Temple Quarter Business Case.